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Claims

1. Sulfonamide derivatives according to formula I

$$Ar^{1}$$
 N $(CH_{2})_{n}$ Ar^{2} SO_{2} Y X R^{1}

with its geometrical isomers, in an optically active form as enantiomers, diastereomers, as well as in the form of racemates, as well as pharmaceutically acceptable salts thereof, wherein

Ar¹ and Ar² are independently from each other substituted or unsubstituted aryl or heteroaryl groups,

X is O or S, preferably O;

10 R¹ is hydrogen or a C₁-C₆-alkyl group, or R¹ forms a substituted or unsubstituted 5-6-membered saturated or unsaturated ring with Ar¹;

n is an integer from 0 to 5, preferably between 1-3 and most preferred 1; Y within formula I is an unsubstituted or a substituted 4-12-membered saturated cyclic or bicyclic alkyl containing at least one nitrogen atom, whereby one nitrogen atom within said ring is forming a bond with the sulfonyl group of formula I thus providing a sulfonamide,

with the proviso that if Ar^1 is 4-chlorophenyl, X is O, R^1 is H, Ar^2 is thienyl, while Y is a piperazino group, L^1 shall not be diphenylmethyl, benzo[1,3]dioxol-5-yl-methyl, 4-methoxy phenyl, 2-hydroxyethyl, methyl, 4-chlorophenyl methyl, and if Y is a 3-methyl piperazino, L^1 shall not be 4-chlorophenyl methyl, and if Y is piperazino-3, 5-dione, L^1 shall not be 2-phenyl ethyl,

with the further proviso that if Ar^1 is 4-chlorophenyl, X is O, R^1 is H, Ar^2 is thienyl, while Y is a piperidino group with L^1 being H, L^2 shall not be 2-hydroxy ethyl;

with the further proviso that if Y is a piperidino- or a pyrrolidino group being substituted at the β-position of the piperidino- or a pyrrolidino nitrogen by a benzo[5, 6]cyclohepta[1, 2b]pyridine, or a benzo[5, 6]cyclohept (3,4) ene [1, 2b]pyridine, while Ar² is thienyl, X is oxygen, R¹ is hydrogen and n is 1, Ar¹ shall not be a phenyl group;

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with the further proviso that if X is oxygen, R¹ is hydrogen and n is 1, while Y is a piperazine, said piperazine at the para-nitrogen shall not be substituted by a group containing a benzamidine or a protected form thereof; with the further proviso that the compounds 2-{[2-(benzoylaminomethyl)-cyclepen| thiophene]-5-sulfonyl}-1,2,3,5,6,7-hexahydro-N,N-dipropyleyanepent[f]isoin-dol-6-amine and N-[[5-[[7-cyano-1,2,3,5-tetrahydro-1-(1H-imidazol-4-yl-methyl)-3-(phenylmethyl)-4H-1,4-benzodiazepin-4-yl]sulfonyl]-2-thienyl] methyl] benzamide and its hydrochloride are excluded; with the final proviso that if X is oxygen and Y is a 4-8 membered saturated cyclic alkyl containing one or two nitrogen atoms, Y shall not be substituted by a group (C=O)N(R,R') at the α-position of the sulfonamide nitrogen.

2. Sulfonamide derivatives according to formula I

$$Ar^{1}$$
 N $(CH_{2})_{n}$ Ar^{2} SO_{2} Y X R^{1}

with its geometrical isomers, in an optically active form as enantiomers, diastereomers, as well as in the form of racemates, as well as pharmaceutically acceptable salts thereof, wherein

 Ar^1 and Ar^2 are independently from each other substituted or unsubstituted aryl or heteroaryl groups,

X is O or S, preferably O;

20 R¹ is hydrogen or a C₁-C₆-alkyl group, or R¹ forms a substituted or unsubstituted 5-6-membered saturated or unsaturated ring with Ar¹;

n is an integer from 0 to 5, preferably between 1-3 and most preferred 1; Y within formula I is an unsubstituted or a substituted 4-12-membered saturated cyclic or bicyclic alkyl containing at least one nitrogen atom, whereby one ni-

trogen atom within said ring is forming a bond with the sulfonyl group of formula I thus providing a sulfonamide, for use as a medicament;

with the proviso that if Y is a piperidino- or a pyrrolidino group being substituted at the β-position of the piperidino- or a pyrrolidino nitrogen by a benzo[5, 6]cyclohepta[1, 2b]pyridine, or a benzo[5, 6]cyclohept (3,4) ene [1, 2b]pyridine,

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while Ar² is thienyl, X is oxygen, R¹ is hydrogen and n is 1, Ar¹ shall not be a phenyl group;

with the further proviso that if X is oxygen, R¹ is hydrogen and n is 1, while Y is a piperazine, said piperazine at the para-nitrogen shall not be substituted by a group containing a benzamidine or a protected form thereof; with the further proviso that the compounds 2-{[2-(benzoylaminomethyl)-thiophene]-5-sulfonyl}-1,2,3,5,6,7-hexahydro-N,N-dipropylcyanopent[f]isoindol-6-amine and N-[[5-[[7-cyano-1,2,3,5-tetrahydro-1-(1H-imidazol-4-yl-methyl)-3-(phenylmethyl)-4H-1,4-benzodiazepin-4-yl]sulfonyl]-2-thienyl] methyl] benzamide and its hydrochloride are excluded; with the final proviso that if X is oxygen and Y is a 4-8 membered saturated cyclic alkyl containing one or two nitrogen atoms, Y shall not be substituted by a group (C=O)N(R,R') at the α-position of the sulfonamide nitrogen.

3. A sulfonamide derivative according to claim 1 or 2, wherein Y is a piperazinoor piperidino group of the general formula



whereby, L^1 and L^2 are independently selected from each other from the group comprising or consisting of H, substituted or unsubstituted C_1 - C_6 -aliphatic alkyl, substituted or unsubstituted C_2 - C_6 -alkynyl, substituted or unsubstituted cyclic C_4 - C_8 -alkyl optionally containing 1-3 heteroatoms and optionally fused with aryl or heteroaryl; or L^1 and L^2 are independently selected from the group comprising or consisting of substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl, aryl- C_1 - C_6 -alkyl, heteroaryl- C_1 - C_6 -alkyl, -C(O)- OR^3 , -C(O)- R^3 , -C(O)- NR^3 ' R^3 , - NR^3 ' R^3 , - NR^3 ' R^3 , with R^3 , R^3 ' being substituents independently selected from the group comprising or consisting of H, substituted or unsubstituted C_1 - C_6 -alkyl, substituted or unsubstituted C_2 - C_6 -alkenyl, substituted or unsubstituted aryl, substituted or unsubstituted or unsubs

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substituted heteroaryl, substituted or unsubstituted aryl-C₁-C₆-alkyl, substituted or unsubstituted heteroaryl-C₁-C₆-alkyl;

said aryl or heteroaryl groups being optionally substituted C₁-C₆-alkyl, C₁-C₆-alkoxy, C₂-C₆-alkenyl, C₂-C₆-alkynyl, amino, acylamino, aminocarbonyl, C₁-C₆-alkoxycarbonyl, aryl, carboxyl, cyano, halogen, hydroxy, nitro, sulfonyl, sulfoxy, C₁-C₆-thioalkoxy,

or L¹ and L² taken together form a 4-8-membered, substituted or unsubstituted saturated cyclic alkyl or heteroalkyl group; and

 R^6 is selected from the group comprising or consisting of hydrogen, substituted or unsubstituted C_1 - C_6 -alkyl, substituted or unsubstituted C_1 - C_6 -alkoxy, OH, halogen, nitro, cyano, sulfonyl, oxo (=O), and n' is an integer from 0 to 4, preferably 1 or 2.

4. A sulfonamide derivative according to claim 1 or 2, wherein Y is a pyrrolidine, an azepan or a 1,4-diazepan moiety of the below formulas

$$(R^6)_{n'}$$
 L^1 $(R^6)_{n'}$ $(R^6)_{n'}$ $(R^6)_{n'}$

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wherein L¹ is selected from the group comprising or consisting of H, substituted or unsubstituted C₁-C₆-alkyl, substituted or unsubstituted C₂-C₆-alkenyl, substituted or unsubstituted cyclic C₄-C₈-alkyl optionally containing 1-3 heteroatoms and optionally fused with aryl or heteroaryl; or L¹ and L² are independently selected from the group comprising or consisting of substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl, aryl-C₁-C₆-alkyl, heteroaryl-C₁-C₆-alkyl, -C(O)-OR³, -C(O)-R³, -C(O)-NR³'R³, -NR³'R³, -NR³'C(O)R³, -NR³'C(O)NR³'R³, -(SO)R³, -(SO₂)R³, -NSO₂R³, -SO₂NR³'R³;

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 R^3 and R^3 are substituents independently selected from the group comprising or consisting of H, substituted or unsubstituted C_1 - C_6 -alkyl, substituted or unsubstituted C_2 - C_6 -alkenyl, substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl, substituted or unsubstituted aryl- C_1 - C_6 -alkyl, substituted or unsubstituted heteroaryl- C_1 - C_6 -alkyl;



 R^6 is selected from the group comprising or consisting of hydrogen, substituted or unsubstituted C_1 - C_6 -alkyl, substituted or unsubstituted C_1 - C_6 -alkoxy, OH, halogen, nitro, cyano, sulfonyl, oxo (=O), sulfoxy, acyloxy, thioalkoxy and n' is an integer from 0 to 4, preferably 0.

- 5 5. A sulfonamide derivative according to any of the preceding claims, wherein Ar¹ and Ar² are independently selected from the group comprising or consisting of phenyl, thienyl, furyl, pyridyl, optionally substituted by C₁-C₆-alkyl, preferably trihalomethyl, C₁-C₆-alkoxy, C₂-C₆-alkenyl, C₂-C₆-alkynyl, amino, acylamino, aminocarbonyl, C₁-C₆-alkoxycarbonyl, aryl, carboxyl, cyano, halogen, hydroxy, nitro, sulfonyl, C₁-C₆-thioalkoxy.
 - 6. A sulfonamide derivative according to claim 5, wherein Ar¹ is an unsubstituted or substituted phenyl.
 - 7. A sulfonamide derivative according to claim 5, wherein Ar² is an unsubstituted or substituted thienyl or furanyl group.
- 15 8. A sulfonamide derivative according to any of the preceding claims, wherein Ar¹ is selected from a 4-chlorophenyl, nitrophenyl, hydroxyphenyl, alkoxy phenyl, pyridyl, 3,4,-dihydroxyphenyl, thioxo-dihydropyridine or its tautomer, pyrazole and X is O, R¹ is hydrogen, n is 1, Ar² is thienyl or furanyl.
 - 9. A sulfonamide derivative according to claim 8, wherein Y is

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with (R⁶)_n, L¹ and L² being as above defined.

10. A sulfonamide derivative according to claim 9, wherein R⁶ is H, L² is H, L¹ is a 5-membered cyclic group containing 3 heteroatoms, preferably a triazole ring which is preferably fused with an unsubstituted or substituted aryl or heteroaryl; or L¹ is -C(O)-R³, or -NHR³;

with R^3 being a substituent selected from the group comprising or consisting of C_1 - C_{12} -alkyl, aryl, heteroaryl, aryl- C_1 - C_6 -alkyl, heteroaryl- C_1 - C_6 -alkyl; said aryl or heteroaryl groups being optionally substituted by halogen, hydroxy, nitro, sulfonyl.

- A sulfonamide derivative according to any of the preceding claims selected from the following group:
 - 4-chloro-N-[5-(piperazine-1-sulfonyl)-thiophen-2-yl-methyl]-benzamide

 - sulfonyl]-thiophen-2-ylmethyl}-benzamide
- 4-chloro-N-({5-[(4-pyridin-2-ylpiperazin-1-yl)sulfonyl]thien-2
 - yl}methyl)benzamide
 - 4-chloro-N-[(5-{[4-(4-fluorobenzoyl)piperidin-1-yl]sulfonyl}thien-2-
 - yl)methyl]benzamide
 - 4-chloro-N-{[5-({4-[4-(trifluoromethyl)phenyl]piperazin-1-yl}sulfonyl)thien-2-
- 15 yl]methyl}benzamide
 - 4-chloro-N-({5-[(4-{2-nitrophenyl})piperazin-1-yl)sulfonyl]thien-2-
 - yl}methyl)benzamide
 - 4-chloro-N-({5-[(4-{4-nitrophenyl}piperazin-1-yl)sulfonyl]thien-2-
 - yl}methyl)benzamide
- 20 4-chloro-N-[(5-{[4-(2-furoyl)piperazin-1-yl]sulfonyl}thien-2
 - yl)methyl]benzamide
 - 4-chloro-N-[(5-{[4-(4-hydroxyphenyl)piperazin-1-yl]sulfonyl}thien-2-
 - yl)methyl]benzamide_
 - 4-chloro-N-[(5-{[4-(2-oxo-2-pyrrolidin-1-ylethyl)piperazin-1-yl]sulfonyl}thien-
- 25 2-yl)methyl]benzamide
 - $\hbox{$4$-chloro-N-[(5-\{[4-(2-morpholin-4-yl-2-oxoethyl)piperazin-1-yl]sulfonyl]$ thiendown and the property of the property of$
 - 2-yl)methyl]benzamide
 - 4-chloro-N-[(5-{[4-(pyridin-4-ylmethyl)piperazin-1-yl]sulfonyl}thien-2-
 - yl)methyl]benzamide
- 4-chloro-N-[(5-{[4-(2-thien-2-ylethyl)piperazin-1-yl]sulfonyl}thien-2-yl)methyl]benzamide

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4-chloro-N-[(5-{[4-(3,5-dimethoxyphenyl)piperazin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 4-chloro-N-[(5-{[4-(cyclohexylmethyl)piperazin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 5 4-chloro-N-[(5-{[4-(2-methoxyphenyl)piperazin-1-yl]sulfonyl}thien-2yl)methyl]benzamide N-({5-[(4-benzylpiperazin-1-yl)sulfonyl]thien-2-yl}methyl)-4-chlorobenzamide 4-chloro-N-[(5-{[4-(2-phenylethyl)piperazin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 10 4-chloro-N-[(5-{[4-(4-fluorobenzyl)piperazin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 4-chloro-N-[(5-{[4-(2-cyanophenyl)piperazin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 4-chloro-N-{[5-({4-[4-chloro-3-(trifluoromethyl)phenyl]piperazin-1yl}sulfonyl)thien-2-yl]methyl}benzamide 15 4-chloro-N-[(5-{[4-(3-piperidin-1-ylpropyl)piperazin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 4-chloro-N-({5-[(4-{4-chloro-2-nitrophenyl}piperazin-1-yl)sulfonyl]thien-2yl}methyl)benzamide 4-chloro-N-[(5-{[4-(6-methylpyridin-2-yl)piperazin-1-yl]sulfonyl}thien-2-20 yl)methyl]benzamide 4-chloro-N-({5-[(4-hydroxy-4-phenylpiperidin-1-yl)sulfonyl]thien-2yl}methyl)benzamide N-({5-[(4-benzoylpiperidin-1-yl)sulfonyl]thien-2-yl}methyl)-4-chlorobenzamide 4-chloro-N-[(5-{[4-(2-oxo-2,3-dihydro-1H-benzimidazol-1-yl)piperidin-1-25 yl]sulfonyl}thien-2-yl)methyl]benzamide N-({5-[(4-benzylpiperidin-1-yl)sulfonyl]thien-2-yl}methyl)-4-chlorobenzamide 4-chloro-N-({5-[(4-oxo-1-phenyl-1,3,8-triazaspiro[4.5]dec-8-yl)sulfonyl]thien-2-yl}methyl)benzamide 30 4-chloro-N-{[5-({4-[2-(methylanilino)-2-oxoethyl]piperazin-1yl}sulfonyl)thien-2-yl]methyl}benzamide

4-chloro-N-{[5-({4-[hydroxy(diphenyl)methyl]piperidin-1-yl}sulfonyl)thien-2yl]methyl}benzamide 4-chloro-N-[(5-{[4-(3-cyanopyrazin-2-yl)piperazin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 4-chloro-N-({5-[(4-{5-nitropyridin-2-yl}piperazin-1-yl)sulfonyl]thien-2-5 yl}methyl)benzamide 4-chloro-N-{[5-({4-[3-chloro-5-(trifluoromethyl)pyridin-2-yl]piperazin-1yl}sulfonyl)thien-2-yl]methyl}benzamide 4-chloro-N-{[5-({4-[5-(trifluoromethyl)pyridin-2-yl]piperazin-1-10 yl}sulfonyl)thien-2-yl]methyl}benzamide 4-chloro-N-{[5-({4-[3-(trifluoromethyl)pyridin-2-yl]piperazin-1yl}sulfonyl)thien-2-yl]methyl}benzamide 4-chloro-N-[(5-{[4-(2,4-difluorobenzoyl)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 15 methyl 5-{4-[(5-{[(4-chlorobenzoyl)amino]methyl}thien-2yl)sulfonyl]piperazin-1-yl}-7-(trifluoromethyl)thieno[3,2-b]pyridine-3carboxylate ethyl 2-{4-[(5-{[(4-chlorobenzoyl)amino]methyl}thien-2-yl)sulfonyl]piperazin-1-yl}-5-cyano-6-methylnicotinate 4-chloro-N-{[5-({4-[5-cyano-4,6-bis(dimethylamino)pyridin-2-yl]piperazin-1-20 yl}sulfonyl)thien-2-yl]methyl}benzamide 4-chloro-N-{[5-({4-[6-methyl-2-(trifluoromethyl)quinolin-4-yl]piperazin-1yl}sulfonyl)thien-2-yl]methyl}benzamide tert-butyl 4-[(5-{[(4-chlorobenzoyl)amino]methyl}thien-2-25 yl)sulfonyl]piperazine-1-carboxylate 8-ethyl-5-oxo-5,8-dihydropyrido[2,3-d]pyrimidine-6-carboxylic acid 7-{4-[(5-{[(4-chlorobenzoyl)amino]methyl}thien-2-yl)sulfonyl]piperazin-1-yl}-1-ethyl-6-fluoro-4-oxo-1,4-dihydro[1,8]naphthyridine-3-carboxylic acid 7-{4-[(5-{[(4-chlorobenzoyl)amino]methyl}thien-2-yl)sulfonyl]piperazin-1-yl}-1-ethyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid

4-chloro-N-[(5-{[4-(2,3-dihydro-1,4-benzodioxin-2-ylcarbonyl)piperazin-1yl]sulfonyl}thien-2-yl)methyl]benzamide 4-chloro-N-{[5-({4-[(2E)-3-phenylprop-2-enyl]piperazin-1-yl}sulfonyl)thien-2yl]methyl}benzamide 4-chloro-N-[(5-{[4-(3-phenylpropyl)piperazin-1-yl]sulfonyl}thien-2-5 yl)methyl]benzamide 4-chloro-N-[(5-{[4-(3,4,5-trimethoxyphenyl)piperazin-1-yl]sulfonyl}thien-2yl)methyl]benzamide N-[(5-{[4-(4-tert-butylbenzyl)piperazin-1-yl]sulfonyl}thien-2-yl)methyl]-4chlorobenzamide 10 4-chloro-N-[(5-{[4-(4-fluorophenyl)piperazin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 4-chloro-N-[(5-{[4-(2-hydroxyphenyl)piperazin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 4-chloro-N-{[5-({4-[4-(trifluoromethyl)pyridin-2-yl]piperazin-1-15 yl}sulfonyl)thien-2-yl]methyl}benzamide 4-chloro-N-[(5-{[4-(5-cyanopyridin-2-yl)piperazin-1-yl]sulfonyl}thien-2yl)methyl]benzamide tert-butyl 1-[(5-{[(4-chlorobenzoyl)amino]methyl}thien-2-yl)sulfonyl]piperidin-4-ylcarbamate 20 4-chloro-N-({5-[(4-phenylpiperazin-1-yl)sulfonyl]thien-2-yl}methyl)benzamide 4-chloro-N-{[5-(piperidin-1-ylsulfonyl)thien-2-yl]methyl}benzamide 4-chloro-N-[(5-{[4-(1-naphthyl)piperazin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 4-chloro-N-[(5-{[4-(3,4-dichlorophenyl)piperazin-1-yl]sulfonyl}thien-2-25 yl)methyl]benzamide 4-chloro-N-{[5-({4-[3-(trifluoromethyl)phenyl]piperazin-1-yl}sulfonyl)thien-2yl]methyl}benzamide 4-chloro-N-{[5-({3-hydroxy-4-[3-(trifluoromethyl)phenyl]piperidin-1-30 yl}sulfonyl)thien-2-yl]methyl}benzamide 4-chloro-N-[(5-{[4-(2-methylphenyl)piperazin-1-yl]sulfonyl}thien-2yl)methyl]benzamide

 $N-[(5-\{[(1R,4R)-5-benzyl-2,5-diazabicyclo[2.2.1]hept-2-yl]sulfonyl\}thien-2-yl]sulfonyl]$ yl)methyl]-4-chlorobenzamide N-[(5-{[4-(benzyloxy)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-4chlorobenzamide 5 4-chloro-N-[(5-{[4-(2-chlorodibenzo[b,f][1,4]oxazepin-11-yl)piperazin-1yl]sulfonyl}thien-2-yl)methyl]benzamide N-(4-chlorophenyl)-2-(5-{[4-(2-oxo-2,3-dihydro-1H-benzimidazol-1yl)piperidin-1-yl]sulfonyl}thien-2-yl)acetamide 4-chloro-N-({5-[(4-hydroxypiperidin-1-yl)sulfonyl]thien-2-10 yl}methyl)benzamide N-[(5-{[4-(4-acetylphenyl)piperazin-1-yl]sulfonyl}thien-2-yl)methyl]-4chlorobenzamide $\hbox{$4$-chloro-N-[(5-\{[4-(3,5-dichloropyridin-4-yl)piperazin-1-yl]sulfonyl]$ thien-2-yl-sulfonyl} this is a sum of the s$ yl)methyl]benzamide 4-chloro-N-[(5-{[4-(3-methoxyphenyl)piperazin-1-yl]sulfonyl}thien-2-15 yl)methyl]benzamide N-({5-[(4-benzyl-4-hydroxypiperidin-1-yl)sulfonyl]thien-2-yl}methyl)-4chlorobenzamide N-{[5-({4-[(2-tert-butyl-1H-indol-5-yl)amino]piperidin-1-yl}sulfonyl)thien-2-20 yl]methyl}-4-chlorobenzamide 4-chloro-N-{[5-({4-[(phenylacetyl)amino]piperidin-1-yl}sulfonyl)thien-2yl]methyl}benzamide 4-chloro-N-[(5-{[4-(tetrahydrofuran-2-ylcarbonyl)piperazin-1-yl]sulfonyl}thien-2-yl)methyl]benzamide 4-chloro-N-[(5-{[4-(6-chloropyridin-2-yl)piperazin-1-yl]sulfonyl}thien-2-25 yl)methyl]benzamide 4-chloro-N-[(5-{[4-(4-chlorophenyl)piperazin-1-yl]sulfonyl}thien-2yl)methyl]benzamide N-[(5-{[4-(2H-1,2,3-benzotriazol-2-yl)piperidin-1-yl]sulfonyl}thien-2yl)methyl]-4-chlorobenzamide 4-chloro-N-[(5-{[4-(4-chlorobenzoyl)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide

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4-chloro-N-({5-[(4-phenoxypiperidin-1-yl)sulfonyl]thien-2-
              yl}methyl)benzamide
              N-{[5-({4-[benzyl(methyl)amino]piperidin-1-yl}sulfonyl)thien-2-yl]methyl}-4-
              chlorobenzamide
              4-chloro-N-{[5-({4-[3-(2,4-dichlorophenyl)-1H-pyrazol-5-yl]piperidin-1-
  5
              yl}sulfonyl)thien-2-yl]methyl}benzamide
              4-chloro-N-[(5-{[4-(5-thien-2-yl-1H-pyrazol-3-yl)piperidin-1-yl]sulfonyl}thien-
              2-yl)methyl]benzamide
              4-chloro-N-[(5-{[4-(2,3,4,5,6-pentamethylbenzoyl)piperidin-1-
              yl]sulfonyl}thien-2-yl)methyl]benzamide
 10
             4-chloro-N-[(5-{[4-(phenylacetyl)-1,4-diazepan-1-yl]sulfonyl}thien-2-
             yl)methyl]benzamide
             4-chloro-N-{[5-({4-[5-(4-methoxyphenyl)-1H-pyrazol-3-yl]piperidin-1-
             yl}sulfonyl)thien-2-yl]methyl}benzamide
             N-({5-[(4-anilinopiperidin-1-yl)sulfonyl]thien-2-yl}methyl)-4-chlorobenzamide
 15
             4-chloro-N-[(5-{[4-(3-phenyl-1,2,4-thiadiazol-5-yl)piperazin-1-
             yl]sulfonyl}thien-2-yl)methyl]benzamide
             4-chloro-N-[(5-{[4-(2-phenylethyl)piperidin-1-yl]sulfonyl}thien-2-
             yl)methyl]benzamide
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             4-chloro-N-({5-[(4-heptylpiperazin-1-yl)sulfonyl]thien-2-yl}methyl)benzamide
             4-chloro-N-({5-[(4-octylpiperazin-1-yl)sulfonyl]thien-2-yl}methyl)benzamide
             N-[(5-{[4-(1H-1,2,3-benzotriazol-1-yl)piperidin-1-yl]sulfonyl}thien-2-
             yl)methyl]-4-chlorobenzamide
             2-(5-{[4-(1H-1,2,3-benzotriazol-1-yl)piperidin-1-yl]sulfonyl}thien-2-yl)-N-(4-
            chlorophenyl)acetamide
25
            2-{1-[(5-{[(4-chlorobenzoyl)amino]methyl}thien-2-yl)sulfonyl]piperidin-4-yl}-
            2H-1,2,3-benzotriazole-5-carboxylic
            4-chloro-N-[(5-{[4-(5-chloro-1H-1,2,3-benzotriazol-1-yl)piperidin-1-
            yl]sulfonyl}thien-2-yl)methyl]benzamide
            methyl 1-{1-[(5-{[(4-chlorobenzoyl)amino]methyl}thien-2-
30
            yl)sulfonyl]piperidin-4-yl}-1H-1,2,3-benzotriazole-5-carboxylate
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methyl 1-{1-[(5-{[(4-chlorobenzoyl)amino]methyl}thien-2-
              yl)sulfonyl]piperidin-4-yl}-1H-1,2,3-benzotriazole-6-carboxylate
              methyl 2-{1-[(5-{[(4-chlorobenzoyl)amino]methyl}thien-2-
              yl)sulfonyl]piperidin-4-yl}-2H-1,2,3-benzotriazole-5-carboxylate
  5
              4-chloro-N-[(5-{[4-(6-chloro-1H-1,2,3-benzotriazol-1-yl)piperidin-1-
              yl]sulfonyl}thien-2-yl)methyl]benzamide
              4-chloro-N-{[5-({4-[5-(trifluoromethyl)-1H-1,2,3-benzotriazol-1-yl]piperidin-1-
              yl}sulfonyl)thien-2-yl]methyl}benzamide
              N-[(5-{[4-(7-aza-1H-benzimidazol-1-yl)piperidin-1-yl]sulfonyl}thien-2-
              yl)methyl]-4-chlorobenzamide
 10
             1-{1-[(5-{[(4-chlorobenzoyl)amino]methyl}thien-2-yl)sulfonyl]piperidin-4-yl}-
              1H-1,2,3-benzotriazole-5-carboxylic
             1-{1-[(5-{[(4-chlorobenzoyl)amino]methyl}thien-2-yl)sulfonyl]piperidin-4-yl}-
             1H-1,2,3-benzotriazole-6-carboxylic
             N-[(5-{[4-(2-amino-9H-purin-9-yl)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-4-
15
             chlorobenzamide
             4-chloro-N-[(5-{[4-(9H-purin-9-yl)piperidin-1-yl]sulfonyl}thien-2-
             yl)methyl]benzamide
             N-[(5-{[4-(6-amino-9H-purin-9-yl)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-4-
20
             chlorobenzamide
             4-chloro-N-({5-[(4-{6-nitro-1H-benzimidazol-1-yl}piperidin-1-
            yl)sulfonyl]thien-2-yl}methyl)benzamide
            4-chloro-N-({5-[(4-{5-nitro-1H-benzimidazol-1-yl}piperidin-1-
            yl)sulfonyl]thien-2-yl}methyl)benzamide
25
            4-chloro-N-[(5-{[4-(2H-1,2,3-triazol-2-yl)piperidin-1-yl]sulfonyl}thien-2-
            yl)methyl]benzamide
            N-[(5-{[4-(1H-benzimidazol-1-yl)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-4-
            chlorobenzamide
            4-chloro-N-{[5-({4-[3-propylanilino]piperidin-1-yl}sulfonyl)thien-2-
            yl]methyl}benzamide
           4-chloro-N-{[5-({4-[3-(trifluoromethyl)anilino]piperidin-1-yl}sulfonyl)thien-2-
           yllmethyl}benzamide
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4-chloro-N-{[5-({4-[3-(dimethylamino)anilino]piperidin-1-yl}sulfonyl)thien-2yl]methyl}benzamide methyl 4-chloro-N-{[5-({4-[3-(methylsulfanyl)anilino]piperidin-1-yl}sulfonyl)thien-2-5 yl]methyl}benzamide 4-chloro-N-({5-[(4-{3-nitroanilino}piperidin-1-yl)sulfonyl]thien-2yl}methyl)benzamide 4-chloro-N-[(5-{[4-(2-methoxyanilino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 3-({1-[(5-{[(4-chlorobenzoyl)amino]methyl}thien-2-yl)sulfonyl]piperidin-4-10 yl}amino)benzamide 4-chloro-N-{[5-({4-[2-(trifluoromethyl)anilino]piperidin-1-yl}sulfonyl)thien-2yl]methyl}benzamide 4-chloro-N-({5-[(4-{2-nitro-4-[(trifluoromethyl)sulfonyl]anilino}piperidin-1yl)sulfonyl]thien-2-yl}methyl)benzamide 15 4-chloro-N-[(5-{[4-(4-chloroanilino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 4-chloro-N-{[5-({4-[4-(trifluoromethyl)anilino]piperidin-1-yl}sulfonyl)thien-2yl]methyl}benzamide 4-chloro-N-({5-[(4-{4-[(trifluoromethyl)sulfonyl]anilino}piperidin-1-20 yl)sulfonyl]thien-2-yl}methyl)benzamide 4-chloro-N-({5-[(4-{2-nitroanilino}piperidin-1-yl)sulfonyl]thien-2yl}methyl)benzamide N-{[5-({4-[4-(aminocarbonyl)anilino]piperidin-1-yl}sulfonyl)thien-2yl]methyl}-4-chlorobenzamide 25 4-chloro-N-{[5-({4-[4-(1,3-dithiolan-2-yl)anilino]piperidin-1-yl}sulfonyl)thien-2-yl]methyl}benzamide $N-[(5-\{[4-(3-chloroanilino)piperidin-1-yl]sulfonyl\}thien-2-yl)methyl]-3-indinentyl]-3-indinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylinentylin$ nitrobenzamide 4-chloro-N-[(5-{[4-(3-chloroanilino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide

4-chloro-N-[(5-{[4-(3-methoxyanilino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 4-chloro-N-{[5-({4-[3-(methylsulfonyl)anilino]piperidin-1-yl}sulfonyl)thien-2yl]methyl}benzamide N-({5-[(4-{3-[amino(imino)methyl]anilino}piperidin-1-yl)sulfonyl]thien-2-5 yl}methyl)-4-chlorobenzamide 4-chloro-N-({5-[(4-{3-[(2-hydroxyethyl)sulfonyl]anilino}piperidin-1yl)sulfonyl]thien-2-yl}methyl)benzamide N-[(5-{[4-(2-aminoanilino)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-4chlorobenzamide 10 4-chloro-N-[(5-{[4-(2-hydroxyanilino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 4-chloro-N-[(5-{[4-(4-hydroxyanilino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 4-chloro-N-({5-[(4-{3-[(trifluoromethyl)sulfanyl]anilino}piperidin-1-15 yl)sulfonyl]thien-2-yl}methyl)benzamide 4-chloro-N-[(5-{[4-(3-toluidino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 4-chloro-N-({5-[(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}piperidin-20 1-yl)sulfonyl]thien-2-yl}methyl)benzamide 4-chloro-N-{[5-({4-[3-(1,3-oxazol-5-yl)anilino]piperidin-1-yl}sulfonyl)thien-2yl]methyl}benzamide N-[(5-{[4-(3-tert-butylanilino)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-4chlorobenzamide 25 4-chloro-N-[(5-{[4-(2-propylanilino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 4-chloro-N-{[5-({4-[(2,2-dioxido-1,3-dihydro-2-benzothien-5yl)amino]piperidin-1-yl}sulfonyl)thien-2-yl]methyl}benzamide 4-chloro-N-[(5-{[4-(2,3-dihydro-1H-inden-5-ylamino)piperidin-1yl]sulfonyl}thien-2-yl)methyl]benzamide 4-chloro-N-[(5-{[4-(4-propylanilino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide

4-chloro-N-[(5-{[4-({3-nitropyridin-2-yl}amino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide N-{[5-({4-[(3-aminopyridin-2-yl)amino]piperidin-1-yl} sulfonyl)thien-2yl]methyl}-4-chlorobenzamide N-[(5-{[4-([1,1'-biphenyl]-3-ylamino)piperidin-1-yl]sulfonyl}thien-2-5 yl)methyl]-4-chlorobenzamide N-[(5-{[4-(3-benzylanilino)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-4chlorobenzamide 4-chloro-N-[(5-{[4-(pyrimidin-2-ylamino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 10 4-chloro-N-{[5-({4-[4-(morpholin-4-ylsulfonyl)anilino]piperidin-1yl}sulfonyl)thien-2-yl]methyl}benzamide 4-chloro-N-({5-[(4-{[4-(trifluoromethyl)pyrimidin-2-yl]amino}piperidin-1yl)sulfonyl]thien-2-yl}methyl)benzamide 4-chloro-N-[(5-{[4-(3-cyclohexyl-4-hydroxyanilino)piperidin-1-15 yl]sulfonyl}thien-2-yl)methyl]benzamide N-({5-[(4-{3-[(butylamino)sulfonyl]anilino}piperidin-1-yl)sulfonyl]thien-2yl}methyl)-4-chlorobenzamide 4-chloro-N-[(5-{[4-(3-ethylanilino)piperidin-1-yl]sulfonyl}thien-2-20 yl)methyl]benzamide 4-chloro-N-[(5-{[4-(5,6,7,8-tetrahydronaphthalen-1-ylamino)piperidin-1yl]sulfonyl}thien-2-yl)methyl]benzamide N-{[5-({4-[3-(aminosulfonyl)anilino]piperidin-1-yl}sulfonyl)thien-2yl]methyl}-4-chlorobenzamide 4-chloro-N-[(5-{[4-(quinolin-5-ylamino)piperidin-1-yl]sulfonyl}thien-2-25 yl)methyl]benzamide 4-chloro-N-[(5-{[4-(quinolin-8-ylamino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 4-Chloro-N-[(5-{[4-(3-propylphenoxy)piperidin-1-yl]sulfonyl}thien-2-30 yl)methyl]benzamide 4-chloro-N-{[5-({4-[(2E)-3-phenylprop-2-enoyl]piperazin-1-yl}sulfonyl)thien-2-yl]methyl}benzamide

4-chloro-N-({5-[(4-{4-nitrobenzoyl}piperazin-1-yl)sulfonyl]thien-2yl}methyl)benzamide N-({5-[(4-benzoylpiperazin-1-yl)sulfonyl]thien-2-yl}methyl)-4chlorobenzamide 4-chloro-N-{[5-({4-[4-(trifluoromethyl)benzoyl]piperazin-1-yl}sulfonyl)thien-2-5 yl]methyl}benzamide 4-chloro-N-{[5-({4-[4-(dimethylamino)benzoyl]piperazin-1-yl}sulfonyl)thien-2yl]methyl}benzamide 4-chloro-N-[(5-{[4-(2-fluorobenzoyl)piperazin-1-yl]sulfonyl}thien-2-10 yl)methyl]benzamide 4-chloro-N-[(5-{[4-(2,6-difluorobenzoyl)piperazin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 4-chloro-N-[(5-{[4-(3-fluorobenzoyl)piperazin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 4-chloro-N-[(5-{[4-(2-naphthoyl)piperazin-1-yl]sulfonyl}thien-2-15 yl)methyl]benzamide 4-chloro-N-[(5-{[4-(1-naphthoyl)piperazin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 4-chloro-N-({5-[(4-{2-nitrobenzoyl}piperazin-1-yl)sulfonyl]thien-2-20 yl}methyl)benzamide 4-chloro-N-[(5-{[4-(pyridin-3-ylcarbonyl)piperazin-1-yl]sulfonyl}thien-2yl)methyl]benzamide $N-[(5-\{[4-(2,1,3-benzoxadiazol-5-ylcarbonyl)piperazin-1-yl]sulfonyl\}thien-2-ylcarbonyl)piperazin-1-yl]sulfonyl\}thien-2-ylcarbonyl)piperazin-1-yllsulfonyl$ yl)methyl]-4-chlorobenzamide 4-chloro-N-[(5-{[4-(2,4-difluorobenzoyl)piperazin-1-yl]sulfonyl}thien-2-25 yl)methyl]benzamide 4-chloro-N-[(5-{[4-(2,4,6-trifluorobenzoyl)piperazin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 4-chloro-N-[(5-{[4-(2,6-dichlorobenzoyl)piperazin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 4-chloro-N-({5-[(4-heptanoylpiperazin-1-yl)sulfonyl]thien-2yl}methyl)benzamide

4-chloro-N-[(5-{[4-(quinolin-8-ylsulfonyl)piperazin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 4-nitro-N-({5-[(4-{3-[(trifluoromethyl)sulfonyl]anilino}piperidin-1yl)sulfonyl]thien-2-yl}methyl)benzamide N-[(5-{[4-(1H-1,2,3-benzotriazol-1-yl)piperidin-1-yl]sulfonyl}thien-2-5 yl)methyl]-3-nitrobenzamide 4-nitro-N-({5-[(4-{3-[(trifluoromethyl)sulfonyl]anilino}piperidin-1yl)sulfonyl]thien-2-yl}methyl)benzamide N-[(5-{[4-(2,4-difluorobenzoyl)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-4-10 nitrobenzamide N-[(5-{[4-(1H-1,2,3-benzotriazol-1-yl)piperidin-1-yl]sulfonyl}thien-2yl)methyl]-4-nitrobenzamide N-[(5-{[4-(1H-1,2,3-benzotriazol-1-yl)piperidin-1-yl]sulfonyl}thien-2yl)methyl]-3-nitrobenzamide 4-nitro-N-({5-[(4-{3-[(trifluoromethyl)sulfonyl]anilino}piperidin-1-15 yl)sulfonyl]thien-2-yl}methyl)benzamide N-[(5-{[4-(2,4-difluorobenzoyl)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-4nitrobenzamide N-[(5-{[4-(1H-1,2,3-benzotriazol-1-yl)piperidin-1-yl]sulfonyl}thien-2yl)methyl]-4-nitrobenzamide 20 3-nitro-N-[(5-{[4-(3-methoxyanilino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 3-nitro-N-{[5-({4-[3-(trifluoromethyl)anilino]piperidin-1-yl}sulfonyl)thien-2yl]methyl}benzamide N-{[5-({4-[3-(dimethylamino)anilino]piperidin-1-yl}sulfonyl)thien-2-25 yl]methyl}-3-nitrobenzamide 3-nitro-N-{[5-({4-[3-(methylsulfonyl)anilino]piperidin-1-yl}sulfonyl)thien-2yl]methyl}benzamide 3-nitro-N-{[5-({4-[3-(methylsulfanyl)anilino]piperidin-1-yl}sulfonyl)thien-2-30 yl]methyl}benzamide N-{[5-({4-[3-(aminosulfonyl)anilino]piperidin-1-yl}sulfonyl)thien-2yl]methyl}-3-nitrobenzamide

methyl N-{[5-({4-[3-(aminocarbonyl)anilino]piperidin-1-yl}sulfonyl)thien-2yl]methyl}-3-nitrobenzamide 3-nitro-N-({5-[(4-{3-nitroanilino}piperidin-1-yl)sulfonyl]thien-2yl}methyl)benzamide 5 3-nitro-N-[(5-{[4-(2-methoxyanilino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide $3-nitro-N-\{[5-(\{4-[2-(trifluoromethyl)anilino]piperidin-1-yl\}sulfonyl)thien-2-line and the sum of the property of the sum of the s$ yl]methyl}benzamide 3-nitro-N-({5-[(4-{2-nitroanilino}piperidin-1-yl)sulfonyl]thien-2-10 yl}methyl)benzamide N-[(5-{[4-(4-chloroanilino)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-3nitrobenzamide 3-nitro-N-{[5-({4-[4-(trifluoromethyl)anilino]piperidin-1-yl}sulfonyl)thien-2-15 yl]methyl}benzamide 3-nitro-N-({5-[(4-{4-[(trifluoromethyl)sulfonyl]anilino}piperidin-1yl)sulfonyl]thien-2-yl}methyl)benzamide N-{[5-({4-[4-(aminocarbonyl)anilino]piperidin-1-yl}sulfonyl)thien-2yl]methyl}-3-nitrobenzamide N-[(5-{[4-(3-propylanilino)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-3-20 nitrobenzamide $N-[(5-\{[4-(3-chloroanilino)piperidin-1-yl]sulfonyl\}thien-2-yl)methyl]-4-independent of the property of the p$ nitrobenzamide 4-nitro-N-[(5-{[4-(3-methoxyanilino)piperidin-1-yl]sulfonyl}thien-2-25 yl)methyl]benzamide 4-nitro-N-{[5-({4-[3-(trifluoromethyl)anilino]piperidin-1-yl}sulfonyl)thien-2yl]methyl}benzamide N-{[5-({4-[3-(dimethylamino)anilino]piperidin-1-yl}sulfonyl)thien-2yl]methyl}-4-nitrobenzamide 4-nitro-N-[(5-{[4-(3-propylanilino)piperidin-1-yl]sulfonyl}thien-2-30 yl)methyl]benzamide

4-nitro-N-{[5-({4-[3-(methylsulfonyl)anilino]piperidin-1-yl}sulfonyl)thien-2yl]methyl}benzamide 4-nitro-N-{[5-({4-[3-(methylsulfanyl)anilino]piperidin-1-yl}sulfonyl)thien-2yl]methyl}benzamide N-{[5-({4-[3-(aminosulfonyl)anilino]piperidin-1-yl}sulfonyl)thien-2-5 yl]methyl}-4-nitrobenzamide methyl 3-{[1-({5-[({4-nitrobenzoyl}amino)methyl]thien-2-yl}sulfonyl)piperidin-4yl]amino}benzamide 4-nitro-N-({5-[(4-{3-nitroanilino}piperidin-1-yl)sulfonyl]thien-2-10 yl}methyl)benzamide 4-nitro-N-[(5-{[4-(2-methoxyanilino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 4-nitro-N-{[5-({4-[2-(trifluoromethyl)anilino]piperidin-1-yl}sulfonyl)thien-2-15 yl]methyl}benzamide 4-nitro-N-({5-[(4-{2-nitroanilino}piperidin-1-yl)sulfonyl]thien-2yl}methyl)benzamide N-[(5-{[4-(4-chloroanilino)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-4nitrobenzamide 4-nitro-N-{[5-({4-[4-(trifluoromethyl)anilino]piperidin-1-yl}sulfonyl)thien-2-20 yl]methyl}benzamide 4-nitro-N-({5-[(4-{4-[(trifluoromethyl)sulfonyl]anilino}piperidin-1yl)sulfonyl]thien-2-yl}methyl)benzamide N-{[5-({4-[4-(aminocarbonyl)anilino]piperidin-1-yl}sulfonyl)thien-2-25 yl]methyl}-4-nitrobenzamide N-{[5-({4-[4-(1,3-dithiolan-2-yl)anilino]piperidin-1-yl}sulfonyl)thien-2yl]methyl}-4-nitrobenzamide N-({5-[(4-{3-[amino(imino)methyl]anilino}piperidin-1-yl)sulfonyl]thien-2yl}methyl)-3-nitrobenzamide N-({5-[(4-{3-[(2-hydroxyethyl)sulfonyl]anilino}piperidin-1-yl)sulfonyl]thien-2-30 yl}methyl)-3-nitrobenzamide N-({5-[(4-anilinopiperidin-1-yl)sulfonyl]thien-2-yl}methyl)-3-nitrobenzamide

N-({5-[(4-{3-[(2-hydroxyethyl)sulfonyl]anilino}piperidin-1-yl)sulfonyl]thien-2yl}methyl)-4-nitrobenzamide N-({5-[(4-anilinopiperidin-1-yl)sulfonyl]thien-2-yl}methyl)-4-nitrobenzamide N-({5-[(4-{3-[amino(imino)methyl]anilino}piperidin-1-yl)sulfonyl]thien-2-5 yl}methyl)-4-nitrobenzamide 3-nitro-N-({5-[(4-{3-[(trifluoromethyl)sulfanyl]anilino}piperidin-1yl)sulfonyl]thien-2-yl}methyl)benzamide 4-nitro-N-({5-[(4-{3-[(trifluoromethyl)sulfanyl]anilino}piperidin-1yl)sulfonyl]thien-2-yl}methyl)benzamide 3-nitro-N-[(5-{[4-({3-nitropyridin-2-yl}amino)piperidin-1-yl]sulfonyl}thien-2-10 yl)methyl]benzamide N-{[5-({4-[(2,2-dioxido-1,3-dihydro-2-benzothien-5-yl)amino]piperidin-1yl}sulfonyl)thien-2-yl]methyl}-3-nitrobenzamide N-[(5-{[4-(2,3-dihydro-1H-inden-5-ylamino)piperidin-1-yl]sulfonyl}thien-2-15 yl)methyl]-3-nitrobenzamide 3-nitro-N-[(5-{[4-(2-propylanilino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 3-nitro-N-[(5-{[4-(4-propylanilino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide N-[(5-{[4-(3-tert-butylanilino)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-3-20 nitrobenzamide 3-nitro-N-{[5-({4-[3-(1,3-oxazol-5-yl)anilino]piperidin-1-yl}sulfonyl)thien-2yl]methyl}benzamide 3-nitro-N-[(5-{[4-(2-phenylethyl)piperidin-1-yl]sulfonyl}thien-2-25 yl)methyl]benzamide N-({5-[(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}piperidin-1yl)sulfonyl]thien-2-yl}methyl)-3-nitrobenzamide $N-[(5-\{[4-([1,1'-biphenyl]-3-ylamino)piperidin-1-yl]sulfonyl\}thien-2-ylamino)piperidin-1-yl]sulfonyl]$ yl)methyl]-3-nitrobenzamide N-[(5-{[4-(3-benzylanilino)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-3-30 nitrobenzamide

3-nitro-N-{[5-({4-[3-(morpholin-4-ylsulfonyl)anilino]piperidin-1yl}sulfonyl)thien-2-yl]methyl}benzamide 3-nitro-N-[(5-{[4-(3-propylphenoxy)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 4-nitro-N-[(5-{[4-(pyrimidin-2-ylamino)piperidin-1-yl]sulfonyl}thien-2-5 yl)methyl]benzamide N-{[5-({4-[(3-aminopyridin-2-yl)amino]piperidin-1-yl}sulfonyl)thien-2yl]methyl}-4-nitrobenzamide 4-nitro-N-[(5-{[4-({3-nitropyridin-2-yl}amino)piperidin-1-yl]sulfonyl}thien-2-10 yl)methyl]benzamide N-[(5-{[4-(2,3-dihydro-1H-inden-5-ylamino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]-4-nitrobenzamide 4-nitro-N-[(5-{[4-(2-propylanilino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 4-nitro-N-[(5-{[4-(4-propylanilino)piperidin-1-yl]sulfonyl}thien-2-15 yl)methyl]benzamide N-[(5-{[4-(3-tert-butylanilino)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-4nitrobenzamide $4-nitro-N-\{[5-(\{4-[3-(1,3-oxazol-5-yl)anilino]piperidin-1-yl\}sulfonyl)thien-2-ylanilino[piperidin-1-yl]\}sulfonyl)thien-2-ylanilino[piperidin-1-yl]sulfonyl)thien-2-ylanilino[piperidin-1-yl]sulfonyl)thien-2-ylanilino[piperidin-1-yl]sulfonyl)thien-2-ylanilino[piperidin-1-yl]sulfonyl)thien-2-ylanilino[piperidin-1-yl]sulfonyl)thien-2-ylanilino[piperidin-1-yl]sulfonyl)thien-2-ylanilino[piperidin-1-yl]sulfonyl)thien-2-ylanilino[piperidin-1-yl]sulfonyl)thien-2-ylanilino[piperidin-1-yl]sulfonyl)thien-2-ylanilino[piperidin-1-yl]sulfonyl)thien-2-ylanilino[piperidin-1-yl]sulfonyl)thien-2-ylanilino[piperidin-1-yl]sulfonyl)thien-2-ylanilino[piperidin-1-yl]sulfonyl)thien-2-ylanilino[piperidin-1-yl]sulfonyl)thien-2-ylanilino[piperidin-1-ylanilino]ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino]ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino]ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanilino[piperidin-1-ylanili$ 20 yl]methyl}benzamide 4-nitro-N-[(5-{[4-(2-phenylethyl)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide $N-(\{5-[(4-\{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino\}piperidin-1-1-yl]$ yl)sulfonyl]thien-2-yl}methyl)-4-nitrobenzamide N-[(5-{[4-([1,1'-biphenyl]-3-ylamino)piperidin-1-yl]sulfonyl}thien-2-25 yl)methyl]-4-nitrobenzamide N-[(5-{[4-(3-benzylanilino)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-4nitrobenzamide 4-nitro-N-{[5-({4-[3-(morpholin-4-ylsulfonyl)anilino]piperidin-1yl}sulfonyl)thien-2-yl]methyl}benzamide N-[(5-{[4-(2-aminoanilino)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-3nitrobenzamide

3-nitro-N-[(5-{[4-(pyrimidin-2-ylamino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide N-{[5-({4-[(3-aminopyridin-2-yl)amino]piperidin-1-yl}sulfonyl)thien-2yl]methyl}-3-nitrobenzamide N-({5-[(4-{2-nitro-4-[(trifluoromethyl)sulfonyl]anilino}piperidin-1-5 yl)sulfonyl]thien-2-yl}methyl)-3-methoxybenzamide 3-nitro-N-[(5-{[4-(3-phenylpropyl)piperazin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 3-nitro-N-({5-[(4-{[4-(trifluoromethyl)pyrimidin-2-yl]amino}piperidin-1-10 yl)sulfonyl]thien-2-yl}methyl)benzamide yl)methyl]-3-nitrobenzamide N-({5-[(4-{3-[(butylamino)sulfonyl]anilino}piperidin-1-yl)sulfonyl]thien-2yl}methyl)-3-nitrobenzamide 15 N-[(5-{[4-(3-ethylanilino)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-3nitrobenzamide 3-nitro-N-[(5-{[4-(5,6,7,8-tetrahydronaphthalen-1-ylamino)piperidin-1yl]sulfonyl}thien-2-yl)methyl]benzamide 4-nitro-N-[(5-{[4-(3-propylphenoxy)piperidin-1-yl]sulfonyl}thien-2-20 yl)methyl]benzamide N-[(5-{[4-(2,4-difluorobenzoyl)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-3nitrobenzamide methoxybenzamide 25 2-Hydroxy-N-({5-[(4-{3-[(trifluoromethyl)sulfonyl]anilino}piperidin-1yl)sulfonyl]thien-2-yl}methyl)benzamide N-[(5-{[4-(1H-1,2,3-benzotriazol-1-yl)piperidin-1-yl]sulfonyl}thien-2yl)methyl]-3-methoxybenzamide N-[(5-{[4-(1H-1,2,3-benzotriazol-1-yl)piperidin-1-yl]sulfonyl}thien-2yl)methyl]-2-hydroxybenzamide N-{[5-({4-[4-(1,3-dithiolan-2-yl)anilino]piperidin-1-yl}sulfonyl)thien-2yl]methyl}-3-nitrobenzamide

3-methoxy-N-[(5-{[4-(3-methoxyanilino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 3-methoxy-N-{[5-({4-[3-(trifluoromethyl)anilino]piperidin-1-yl}sulfonyl)thien-2-yl]methyl}benzamide N-{[5-({4-[3-(dimethylamino)anilino]piperidin-1-yl}sulfonyl)thien-2-5 yl]methyl}-3-methoxybenzamide 3-methoxy-N-[(5-{[4-(3-propylanilino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 3-methoxy-N-{[5-({4-[3-(methylsulfonyl)anilino]piperidin-1-yl}sulfonyl)thien-2-yllmethyl}benzamide 10 3-methoxy-N-{[5-({4-[3-(methylsulfanyl)anilino]piperidin-1-yl}sulfonyl)thien-2-yl]methyl}benzamide N-{[5-({4-[3-(aminosulfonyl)anilino]piperidin-1-yl}sulfonyl)thien-2yl]methyl}-3-methoxybenzamide 15 methyl N-{[5-({4-[3-(aminocarbonyl)anilino]piperidin-1-yl}sulfonyl)thien-2yl]methyl}-3-methoxybenzamide 3-methoxy-N-[(5-{[4-(2-methoxyanilino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 20 N-({5-[(4-{3-nitroanilino}piperidin-1-yl)sulfonyl]thien-2-yl}methyl)-3methoxybenzamide 3-methoxy-N-{[5-({4-[2-(trifluoromethyl)anilino]piperidin-1-yl}sulfonyl)thien-2-yl]methyl}benzamide N-({5-[(4-{2-nitroanilino}piperidin-1-yl)sulfonyl]thien-2-yl}methyl)-3-25 methoxybenzamide N-{[5-({4-[4-(aminocarbonyl)anilino]piperidin-1-yl}sulfonyl)thien-2yl]methyl}-3-methoxybenzamide N-{[5-({4-[4-(1,3-dithiolan-2-yl)anilino]piperidin-1-yl}sulfonyl)thien-2yl]methyl}-3-methoxybenzamide N-[(5-{[4-(3-chloroanilino)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-3methoxybenzamide

N-[(5-{[4-(4-chloroanilino)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-3methoxybenzamide 3-methoxy-N-({5-[(4-{4-[(trifluoromethyl)sulfonyl]anilino}piperidin-1yl)sulfonyl]thien-2-yl}methyl)benzamide N-({5-[(4-{3-[amino(imino)methyl]anilino}piperidin-1-yl)sulfonyl]thien-2-5 yl}methyl)-3-methoxybenzamide N-({5-[(4-{3-[(2-hydroxyethyl)sulfonyl]anilino}piperidin-1-yl)sulfonyl]thien-2yl}methyl)-3-methoxybenzamide 3-methoxy-N-({5-[(4-{3-[(trifluoromethyl)sulfonyl]anilino}piperidin-1-10 yl)sulfonyl]thien-2-yl}methyl)benzamide N-({5-[(4-anilinopiperidin-1-yl)sulfonyl]thien-2-yl}methyl)-3methoxybenzamide 3-methoxy-N-({5-[(4-{3-[(trifluoromethyl)sulfanyl]anilino}piperidin-1yl)sulfonyl]thien-2-yl}methyl)benzamide 15 N-[(5-{[4-(4-hydroxyanilino)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-3methoxybenzamide 3-nitro-N-({5-[(4-{3-[(trifluoromethyl)sulfanyl]anilino}piperidin-1yl)sulfonyl]thien-2-yl}methyl)benzamide 4-nitro-N-({5-[(4-{3-[(trifluoromethyl)sulfanyl]anilino}piperidin-1yl)sulfonyl]thien-2-yl}methyl)benzamide 20 N-[(5-{[4-(2-hydroxyanilino)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-3methoxybenzamide 3-methoxy-N-[(5-{[4-(pyrimidin-2-ylamino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 25 N-{[5-({4-[(3-aminopyridin-2-yl)amino]piperidin-1-yl}sulfonyl)thien-2yl]methyl}-3-methoxybenzamide N-[(5-{[4-({3-nitropyridin-2-yl}amino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]-3-methoxybenzamide N-{[5-({4-[(2,2-dioxido-1,3-dihydro-2-benzothien-5-yl)amino]piperidin-1-30 yl}sulfonyl)thien-2-yl]methyl}-3-methoxybenzamide N-[(5-{[4-(2,3-dihydro-1H-inden-5-ylamino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]-3-methoxybenzamide

3-methoxy-N-[(5-{[4-(2-propylanilino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 3-methoxy-N-[(5-{[4-(4-propylanilino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide N-[(5-{[4-(3-tert-butylanilino)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-3-5 methoxybenzamide N-({5-[(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}piperidin-1yl)sulfonyl]thien-2-yl}methyl)-3-methoxybenzamide 3-methoxy-N-{[5-({4-[3-(1,3-oxazol-5-yl)anilino]piperidin-1-yl}sulfonyl)thien-10 2-yllmethyl}benzamide N-[(5-{[4-([1,1'-biphenyl]-3-ylamino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]-3-methoxybenzamide 3-methoxy-N-[(5-{[4-(3-propylphenoxy)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 3-methoxy-N-{[5-({4-[3-(morpholin-4-ylsulfonyl)anilino]piperidin-1-15 yl}sulfonyl)thien-2-yl]methyl}benzamide 3-methoxy-N-[(5-{[4-(2-phenylethyl)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide N-[(5-{[4-(3-benzylanilino)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-3-20 methoxybenzamide 3-methoxy-N-[(5-{[4-(3-phenylpropyl)piperazin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 3-methoxy-N-({5-[(4-{[4-(trifluoromethyl)pyrimidin-2-yl]amino}piperidin-1yl)sulfonyl]thien-2-yl}methyl)benzamide $N-[(5-\{[4-(3-cyclohexyl-4-hydroxyanilino)piperidin-1-yl]sulfonyl\}\ thien-2-yl]sulfonyl]$ 25 yl)methyl]-3-methoxybenzamide $N-(\{5-[(4-\{3-[(butylamino)sulfonyl]anilino\}piperidin-1-yl)sulfonyl]thien-2-yl)sulfonyl] in the property of t$ yl}methyl)-3-methoxybenzamide N-[(5-{[4-(3-ethylanilino)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-3-30 methoxybenzamide 3-methoxy-N-[(5-{[4-(5,6,7,8-tetrahydronaphthalen-1-ylamino)piperidin-1yl]sulfonyl}thien-2-yl)methyl]benzamide

N-[(5-{[4-(1H-1,2,3-benzotriazol-1-yl)piperidin-1-yl]sulfonyl}thien-2yl)methyl]-5-nitro-1H-pyrazole-3-carboxamide N-[(5-{[4-(1H-1,2,3-benzotriazol-1-yl)piperidin-1-yl]sulfonyl}thien-2yl)methyl]-2-oxo-1,2-dihydropyridine-3-carboxamide N-[(5-{[4-(1H-1,2,3-benzotriazol-1-yl)piperidin-1-yl]sulfonyl}thien-2-5 yl)methyl]-2-thioxo-1,2-dihydropyridine-3-carboxamide N-[(5-{[4-(1H-1,2,3-benzotriazol-1-yl)piperidin-1-yl]sulfonyl}thien-2yl)methyl]-3,4-dihydroxybenzamide N-[(5-{[4-(1H-1,2,3-benzotriazol-1-yl)piperidin-1-yl]sulfonyl}thien-2-10 yl)methyl]pyridine-2-carboxamide N-[(5-{[4-(hexyloxy)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-3methoxybenzamide N-({5-[(4-heptanoylpiperidin-1-yl)sulfonyl]thien-2-yl}methyl)-3methoxybenzamide 15 4-chloro-N-[(5-{[4-(3-propylanilino)piperidin-1-yl]sulfonyl}-2furyl)methyl]benzamide 4-chloro-N-[(5-{[4-(3-chloroanilino)piperidin-1-yl]sulfonyl}-2furyl)methyl]benzamide 4-chloro-N-[(5-{[4-(3-methoxyanilino)piperidin-1-yl]sulfonyl}-2-20 furyl)methyllbenzamide 4-chloro-N-{[5-({4-[3-(trifluoromethyl)anilino]piperidin-1-yl}sulfonyl)-2furyl]methyl]benzamide 4-chloro-N-{[5-({4-[3-(dimethylamino)anilino]piperidin-1-yl}sulfonyl)-2furyl]methyl}benzamide 25 4-chloro-N-{[5-({4-[3-(methylsulfonyl)anilino]piperidin-1-yl}sulfonyl)-2furyl]methyl}benzamide 4-chloro-N-{[5-({4-[3-(methylsulfanyl)anilino]piperidin-1-yl}sulfonyl)-2furyl]methyl}benzamide N-{[5-({4-[3-(aminosulfonyl)anilino]piperidin-1-yl}sulfonyl)-2-furyl]methyl}-30 4-chlorobenzamide methyl 3-({1-[(5-{[(4-chlorobenzoyl)amino]methyl}-2-furyl)sulfonyl]piperidin-4-yl}amino)benzoate

3-({1-[(5-{[(4-chlorobenzoyl)amino]methyl}-2-furyl)sulfonyl]piperidin-4yl}amino)benzamide 4-chloro-N-({5-[(4-{3-nitroanilino}piperidin-1-yl)sulfonyl]-2furyl}methyl)benzamide 4-chloro-N-[(5-{[4-(2-methoxyanilino)piperidin-1-yl]sulfonyl}-2-5 furyl)methyl]benzamide $\hbox{$4$-chloro-N-{[5-($4-[2-(trifluoromethyl)anilino] piperidin-1-yl}sulfonyl)-2-defined as a summary of the s$ furyl]methyl}benzamide 4-chloro-N-({5-[(4-{2-nitroanilino}piperidin-1-yl)sulfonyl]-2furyl}methyl)benzamide 10 4-chloro-N-[(5-{[4-(4-chloroanilino)piperidin-1-yl]sulfonyl}-2furyl)methyl]benzamide 4-chloro-N-{[5-({4-[4-(trifluoromethyl)anilino}piperidin-1-yl}sulfonyl)-2furyl]methyl}benzamide 4-chloro-N-({5-[(4-{4-[(trifluoromethyl)sulfonyl]anilino}piperidin-1-15 yl)sulfonyl]-2-furyl}methyl)benzamide N-{[5-({4-[4-(aminocarbonyl)anilino]piperidin-1-yl}sulfonyl)-2-furyl]methyl}-4-chlorobenzamide 4-chloro-N-{[5-({4-[4-(1,3-dithiolan-2-yl)anilino]piperidin-1-yl}sulfonyl)-2furyl]methyl}benzamide 20 N-({5-[(4-{3-[amino(imino)methyl]anilino}piperidin-1-yl)sulfonyl]-2furyl}methyl)-4-chlorobenzamide 4-chloro-N-({5-[(4-{3-[(trifluoromethyl)sulfonyl]anilino}piperidin-1yl)sulfonyl]-2-furyl}methyl)benzamide 25 $N-(\{5-[(4-anilinopiperidin-1-yl)sulfonyl]-2-furyl\} methyl)-4-chlorobenzamide$ 4-nitro-N-({5-[(4-{3-[(trifluoromethyl)sulfanyl]anilino}piperidin-1yl)sulfonyl]2-furyl}methyl)benzamide 4-chloro-N-({5-[(3-{3-[(trifluoromethyl)sulfonyl]anilino}pyrrolidin-1yl)sulfonyl]thien-2-yl}methyl)benzamide 4-chloro-N-({5-[(4-{3-[(trifluoromethyl)sulfonyl]anilino}azepan-1-30 yl)sulfonyl]thien-2-yl}methyl)benzamide

- 12. A sulfonamide derivative according to claim 11, which is selected from the group consisting of 4-chloro-N-[(5-{[4-(2,4-difluorobenzoyl)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 4-chloro-N-[(5-{[4-(phenylacetyl)-1,4-diazepan-1-yl]sulfonyl}thien-2-5 yl)methyl]benzamide N-({5-[(4-anilinopiperidin-1-yl)sulfonyl]thien-2-yl}methyl)-4-chlorobenzamide N-[(5-{[4-(1H-1,2,3-benzotriazol-1-yl)piperidin-1-yl]sulfonyl}thien-2yl)methyl]-4-chlorobenzamide N-[(5-{[4-(1H-benzimidazol-1-yl)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-4-10 chlorobenzamide 4-chloro-N-{[5-({4-[3-propylanilino]piperidin-1-yl}sulfonyl)thien-2yllmethyl}benzamide 4-chloro-N-[(5-{[4-(4-chloroanilino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide 15 4-chloro-N-({5-[(4-{3-[(2-hydroxyethyl)sulfonyl]anilino}piperidin-1yl)sulfonyl]thien-2-yl}methyl)benzamide N-{[5-({4-[3-(aminosulfonyl)anilino]piperidin-1-yl}sulfonyl)thien-2yl]methyl}-4-chlorobenzamide 4-chloro-N-[(5-{[4-(1-naphthoyl)piperazin-1-yl]sulfonyl}thien-2-20 yl)methyl]benzamide 4-nitro-N-[(5-{[4-(3-methoxyanilino)piperidin-1-yl]sulfonyl}thien-2yl)methyl]benzamide methyl 3-{[1-({5-[({4-nitrobenzoyl}amino)methyl]thien-2-25 yl}sulfonyl)piperidin-4-yl]amino}benzoate N-[(5-{[4-(1H-1,2,3-benzotriazol-1-yl)piperidin-1-yl]sulfonyl}thien-2yl)methyl]-2-hydroxybenzamide N-({5-[(4-{2-nitroanilino}piperidin-1-yl)sulfonyl]thien-2-yl}methyl)-3methoxybenzamide
- 30 13. Use of a sulfonamide derivative according to formula I

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$$Ar^{\frac{1}{1}}$$
 N $(CH_2)_n$ $Ar^{\frac{2}{2}}$ SO_2 Y X R^1

wherein Ar1 and Ar2 are independently from each other substituted or unsubstituted aryl or heteroaryl groups;

X is O or S, preferably O;

mula I thus providing a sulfonamide,

- R1 is hydrogen or a C1-C6-alkyl group, or R1 forms a substituted or unsubstituted 5-6-membered saturated or unsaturated ring with Ar¹; n is an integer from 0 to 5, preferably between 1-3 and most preferred 1; Y within formula I is an unsubstituted or a substituted 4-12-membered saturated cyclic or bicyclic alkyl containing at least one nitrogen atom, whereby one nitrogen atom within said ring is forming a bond with the sulfonyl group of for-10
 - for the preparation of a pharmaceutical composition for the modulation of the JNK pathway.
- Use according to claim 13 for the treatment or prevention of disorders associated 14. with the abnormal expression or activity of JNK. 15
 - Use according to claim 14 for the treatment or prevention of disorders associated 15. with abnormal expression or activity of JNK2 and/or 3.
- Use of sulfonamides according to formula I in particular according to any of 16. claims 13 to 15 for the treatment of neuronal disorders including epilepsy; Alzheimer's disease, Huntington's disease, Parkinson's disease; retinal diseases, 20 spinal cord injury, head trauma.
 - Use of sulfonamides according to formula I in particular according to any of 17. claims 13 to 15 for the treatment of autoimmune diseases including Multiple Sclerosis, inflammatory bowel disease (IBD), rheumatoid arthritis, asthma, septic shock, transplant rejection.

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- 18. Use of sulfonamides according to formula I in particular according to any of claims 13 to 15 for the treatment of cancer including breast-, colorectal-, pancreatic cancer.
- 19. Use of sulfonamides according to formula I in particular according to any of claims 13 to 15 for the treatment of cardiovascular diseases including stroke, arterosclerosis, myocordial infarction, myocordial reperfusion injury.
 - 20. A pharmaceutical composition containing at least one sulfonamide derivative according to any of the claims 2 to 12 and a pharmaceutically acceptable carrier, diluent or excipient thereof.
- 10 21. Process for the preparation of a sulfonamide derivative according to any of claims 1 to 12, wherein a sulfonyl chloride V

$$Ar^{1}$$
 N $(CH2)n Ar^{2} $SO2CI$ $V$$

is reacted with an amine VII or VIII

$$HN$$
 $N-L^1$
 VII
 OII
 OII
 $VIII$
 OII

whereby $(R^6)_n$, L^1 and L^2 are as above defined.

22. A process according to claim 21, wherein a sulfonyl chloride V is obtainable by a) coupling an amine of formula II:

$$R^1HN$$
— $(CH_2)_n$ — Ar^2

where Ar² and R¹ are as defined above, with an acyl chloride of formula III:

where Ar¹ is as defined above, to provide an amide of formula IV:

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$$Ar^{1} \longrightarrow N^{-}(CH_{2})_{n} \longrightarrow Ar^{2}$$

O

IV

b) sulfonating the amide of formula IV to provide a sulfonyl chloride V

$$Ar^{1} \underset{O}{\parallel} H^{-}(CH_{2})_{n} \xrightarrow{A} r^{2} SO_{2}CI$$

 \mathbf{v}